WHAT IS CLAIMED IS:

1   1.   A method of providing speed information relative to a
2   legal speed limit, the method comprising the steps of:
3   determining said legal speed limit as a function
4   of position information and stored information indicating
5   the legal speed limit at each of a plurality of different
6   geographic locations;
7   comparing a current speed to said legal speed
8   limit; and
9   alerting the user if the current speed differs
10 from the legal speed limit by a set amount.

1   2.   The method of claim 1, further comprising the step of:
2   obtaining said current position information from
3   a global positioning device.

1   3.   The method of claim 2, wherein the set amount is a
2   positive amount resulting in notification when said legal
3   speed limit is exceeded by said positive amount.

1   4.   The method of claim 2, where the set amount is a
2   negative amount resulting in notification when the current
3   speed drops below said speed limit by the set amount.

1   5.   The method of claim 2, further comprising the step of:
2   calculating the current speed from changes in
3   position information obtained from the global positioning
4   device over a period of time.

1 6.   The method of claim 2, further comprising:

2   periodically updating the stored information

3 indicating the legal speed limit by downloading update

4 information over the Internet.

1 7.   The method of claim 1, further comprising the step of:

2   storing said set amount as a speed limit offset

3 value.

1 8.   The method of claim 1, wherein the method further

2 involves controlling the speed of a vehicle, the method

3 further comprising:

4   comparing the current speed to a speed set

5 relative to said legal speed limit; and

6   adjusting the speed of the vehicle to reduce any

7 different between said speed set relative to said speed

8 limit and said legal speed limit.

1 9.   The method of claim 1, wherein the method is further

2 directed to generating speed trap alert notifications, the

3 method further comprising:

4   comparing current position information to

5 information on the location of known speed traps; and

6   generating an alert signal when said comparing

7 operation indicates that the current position is

8 approaching the location of a known speed trap.

1 10. A method of controlling a speed of a vehicle, the

2 method comprising:

3   accessing stored legal speed limit information as a

4   function of position information to determine the

5   applicable legal speed limit; and

6   modifying the speed of the vehicle as a function of

7   the applicable legal speed limit.

1   11.   The method of claim 10, further comprising:

2   receiving said position information from a global

3   positioning system device.

1   12.   The method of claim 11, further comprising:

2   determining a speed set relative to the

3   applicable legal speed limit as a function of the

4   applicable legal speed limit and a stored speed offset

5   value; and

6   wherein the step of modifying the speed of the

7   vehicle includes:

8   comparing the speed set relative tot eh

9   applicable speed limit to a current speed of the vehicle;

10   and

11   controlling the speed of the vehicle to reduce

12   any difference between the speed set relative to the

13   applicable speed limit and the current speed of the

14   vehicle.

1   13.   The method of claim 12, further comprising the step

2   of:

3   determining the current speed of the vehicle from

4   changes in position information over time.

1 14. The method of claim 11, further comprising the step
2 of:
3   updating the stored legal speed limit information
4 using speed limit information received over the Internet.

1 15. The method of claim 11 further comprising:
2   accessing stored information indicating a speed
3 at which a user has requested to receive a speed alert; and
4   comparing the speed of the vehicle to a speed at
5 which the user has requested a speed alert; and
6   providing a speed alert to the user when the
7 speed of the vehicle matches a speed at which the user has
8 requested to receive a speed alert.

1 16. A method of generating a speed trap alert, the method
2 comprising:
3   operating a location finding device to generate
4 device position information indicating the position of said
5 device;
6   comparing the generated device position
7 information to information in a database of known speed
8 trap locations; and
9   generating a speed trap alert when the device
10 position information indicates a position within the
11 vicinity of a known speed trap.

1 17. The method of claim 16,
2   wherein the location finding device is a global
3 positioning system device, the method further comprising:
4   receiving known speed trap location information
5 from a remote information provider; and

6   updating the database of known speed trap locations using

7   said received information.

1   18. The method of claim 16, further comprising:

2   generating a speed trap alert message including

3   information on the location of a detected speed trap, and

4   the date on which the speed trap is detected; and

5   transmitting the speed trap alert message to a

6   remote provider of speed trap information.

1   19. The method of claim 18, wherein the step of generating

2   a speed trap alert message is performed in response to

3   receiving a signal indicating the detection of one of a

4   radar and a laser signal.

1   20. A vehicle speed control system, comprising:

2   a database of legal speed limit information;

3   a global positioning device for indicating the

4   position of the vehicle;

5   means for accessing the database of speed limit

6   information as a function of position information provided

7   by the global positioning device to determine the legal

8   speed limit applicable to the vehicle based on its current

9   location; and

10   cruise control circuitry for controlling the speed of

11   the vehicle as a function of the determined legal speed

12   limit.

1   21. The vehicle speed control system of claim 1, further

2   comprising:

3 means for predicting when the vehicle is about to

4 enter an area having a lower legal speed limit than the

5 current determined legal speed limit; and

6 means for controlling the cruise control circuitry to

7 reduce the speed of the vehicle as a function of the lower

8 legal speed limit.

1 22. A method of controlling the speed of a vehicle, the

2 method comprising:

3 determining the position of the vehicle;

4 determining from a database of speed limit information

5 the applicable speed limit based on the determined position

6 of the vehicle; and

7 automatically controlling the speed of the vehicle as

8 a function of the determined applicable speed limit.

1 23. The method of claim 23,

2 repeating each of the recited steps of claim 22,

3 the step of automatically controlling the speed of the

4 vehicle including controlling cruise control circuitry to

5 reduce the speed of said vehicle without operator action

6 when an applicable speed limit which is lower than the

7 previously determined applicable speed limit is determined

8 to be applicable.